SPECIFICATIONS

Television system	American TV standards
Channel coverage	VHF channels 2-13 / UHF channels 14-83 — a total of up to 14 preselected channels
Picture tube	Trinitron tube 5-inch picture measured diagonally 55-degree deflection
Antenna	Telescopic Antenna for VHF and UHF 75-ohm external antenna jack for VHF and UHF
Speaker	8 cm (3¼ inches) dia.
Power requirements	120V ac, 60 Hz 12V or 24V dc
Power consumption	27W ac (max.) 17W dc (12V), 17W dc (24V)
Dimensions	Approx. 162 × 269 × 330 mm (w/h/d) Approx. (6⅜ × 10⅝ × 13 inches) incl. projecting parts and controls
Weight	Approx. 6 kg (13 lb 4 oz)
Accessories supplied	Earphone AC power cord Channel number segments Channel sheets External Antenna Connector EAC-6A
Optional accessories	Car Battery Cord DCC-15AW, DCC-15W Battery Pack BP-37W Car Antenna VCA-3W, VCA-4

Design and specifications are subject to change without notice.

Sony Corporation Printed in Japan

4-495-875-21 (3)

SONY

TRINITRON® COLOR TV RECEIVER

KV-5200

OPERATING INSTRUCTIONS

OWNER'S RECORD

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. KV-5200 Serial No. _____

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Specifications ..... back cover

Congratulations on choosing this advanced Sony Color TV Receiver. For best results, please read this manual thoroughly before operating the set, and keep these instructions handy for future reference.

WARNING

To prevent fire or shock hazard, do not expose the set to rain or moisture.

Dangerously high voltages are present inside the set. Do not open the cabinet. Refer servicing to qualified personnel only.

FEATURES

- The semi-automatic program search system permits easy preset tuning of up to 14 channels; VHF, UHF or inactive channels (for monitoring the playback of a video tape recorder, etc.)
- Advanced new automatic circuits are built into your Sony Color TV to eliminate the necessity for frequent readjustment of the tuning and color controls.

A touch of the AUTO/AFT Switch instantly activates these circuits to tune your set for peak performance and locks the color processing system to factory preset values that assure realistic reproduction of every shade and tint.

- Your Sony Color TV features the unique ECONOQUICK system, which provides a picture within seconds after the set is switched on. Unlike conventional instant-picture systems, there is absolutely no power consumption when the set is not in use.
- Three different power sources; household ac, rechargeable battery, or 12V/24V car battery, enable you to use the TV anywhere.

PRECAUTIONS

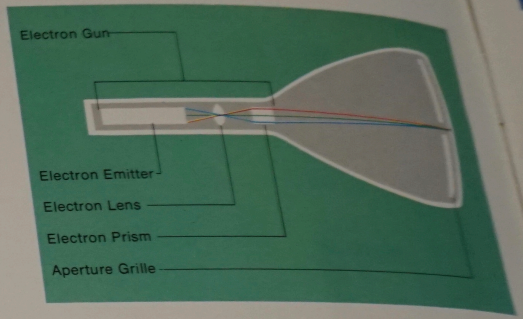
- For ac operation, operate only on 120V ac with the supplied ac power cord. For rechargeable battery operation, use the Sony Battery Pack BP-L70V (optional). For car battery operation, 12V or 24V dc is required. Use the car battery cord recommended for this set.
- The supplied ac power cord is equipped with a polarized plug (one blade of the plug is wider than the other), which will fit into the power outlet only one way. Should you be unable to insert the plug fully into the outlet, try reversing the plug. Should the plug still fail to fit, contact your dealer for assistance. Do not defeat the safety purpose of the polarized plug.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the set on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the set in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Should any liquid or solid object fall into the cabinet, unplug the set and have it checked by qualified personnel before operating it any further.
- Do not attempt to make any of the adjustments at the small holes in the rear and bottom of the set. These are special adjustments to be performed only by qualified personnel.
- Unplug the set from the wall outlet when it is not to be used for an extended period of time.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- Save the original shipping carton and packing material; they will come in handy if you ever have to ship your set. For maximum protection, repack your set as it was originally packed at the factory.

- To keep the set looking brand-new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents such as thinner or benzine, or abrasive cleansers, since these will damage the cabinet. As a safety precaution, unplug the set before cleaning it.

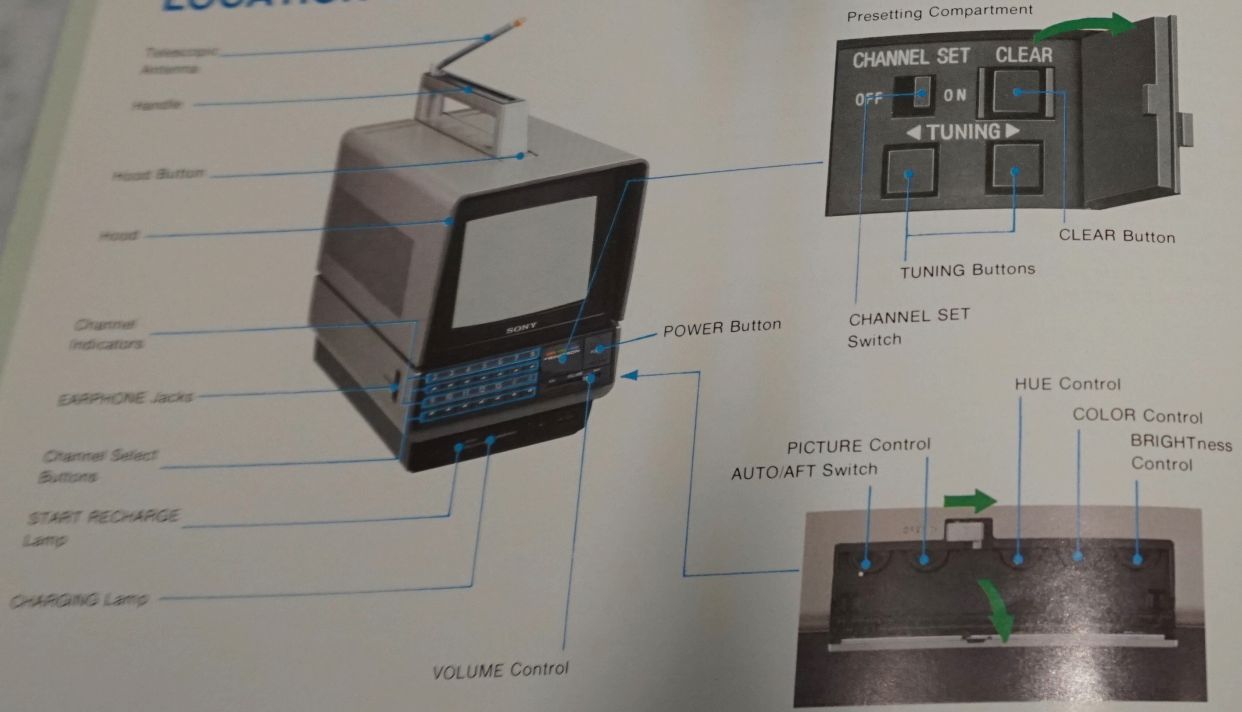
For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS" included with this manual in the vinyl bag.

TRINITRON SYSTEM

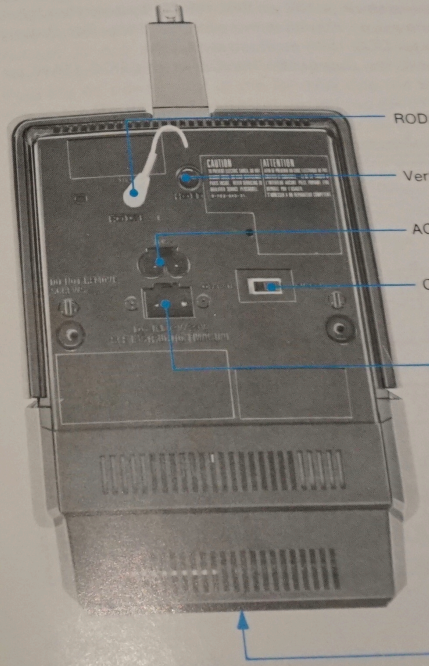
Your Sony Color TV employs the latest concept in color-image reproduction...the TRINITRON System. A product of intensive engineering research, the TRINITRON System ensures bright, sharp pictures and few service requirements.
The system consists of the TRINITRON Gun and "Aperture Grille". The TRINITRON Gun produces the three beams that excite the primary phosphors on the screen. The beams are aimed and focussed by a unique set of electron lenses and a pair of electron prisms. Pictures stay sharp at all points on the screen because all three beams pass through the center of a large lens. The Aperture Grille color-selection system allows a larger amount of electrons to pass through it to provide high brightness on the screen.
"Guard Grille", a series of non-reflecting vertical stripes that alternate with the phosphor color stripes, absorbs ambient light reflections. Moreover, this TV employs newly developed phosphors. The result is a high-contrast, brighter picture with no increase in energy consumption.



LOCATION OF CONTROLS



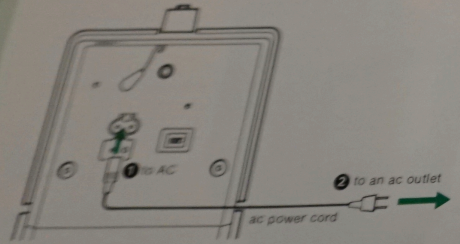
Control Compartment (right side)



POWER SOURCES

House current operation

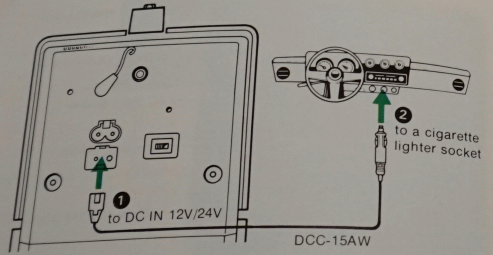
Insert the 2-hole plug of the ac power cord (supplied) into the AC Input Socket of the TV, and connect the other end of the cord to a 120V ac wall outlet.



Car battery operation

The KV-5200 operates on a 12V or 24V vehicle battery through a cigarette lighter socket . Connect the optional Sony Car Battery Cord DCC-15AW (or DCC-15W) as illustrated.

For details, refer to the instruction manual of the DCC-15AW (or DCC-15W).



- Make sure that the ac power cord is disconnected from the AC Input Socket of the TV. Otherwise, the set cannot be operated on the vehicle battery.
- The DCC-15AW (or DCC-15W) is designed for use with a 12V or 24V negative ground system.

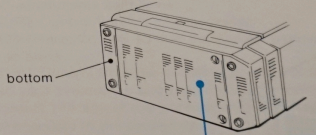
Rechargeable battery operation

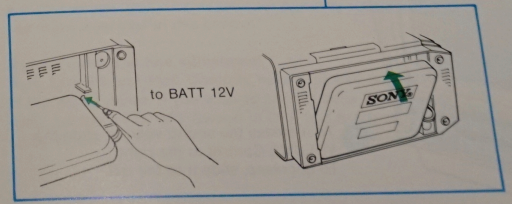
The Sony Battery Pack BP-37W (optional) is specially designed to be used with the KV-5200 and permits TV viewing any place where house current is not available.

First check that the POWER Button is turned off.

Plug the dc power cord of the BP-37W into the BATT 12V Socket inside the Battery Compartment, install the BP-37W, close the Battery Compartment Lid , and then turn the TV on.

For details, refer to the instructions furnished with the BP-37W.





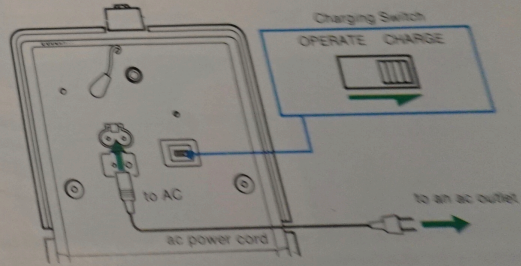
Notes

- Make sure that the ac power cord or the car battery cord is disconnected from the TV. Otherwise, the set cannot be operated on the BP-37W.

- A BP-37W which has been charged for 12 hours will provide approximately 3.5 hours of continuous TV viewing. The use-time may change considerably due to operating conditions. When the picture disappears and the red START RECHARGE Lamp blinks, the battery is exhausted. The BP-37W should then be recharged.

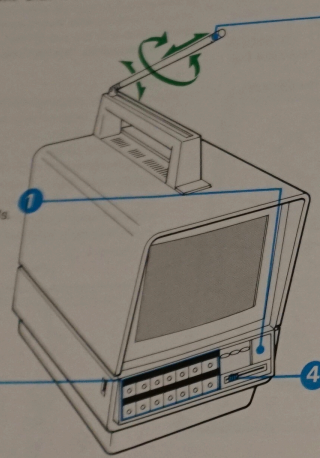
Recharging

After each use, recharge the battery pack through the built-in charger: complete the connections as illustrated, set the Charging Switch to CHARGE, and turn the TV on. Recharging will then start. (No picture or sound comes on.) Charging time is approximately 12 hours. Full recharging of the BP-37W takes 18 to 20 hours and will provide slightly more than 3.5 hours of continuous viewing. While recharging, the green CHARGING Lamp lights. If you wish to view the TV while recharging, set the Charging Switch to OPERATE. In this case more charging time will be needed.



OPERATION

Operate the controls in the numbered sequence for proper operation. The Channel Select Buttons marked 2–13 are preadjusted at the factory to VHF channels 2–13. To reset the channels, see pages 14–19.



3 Pull out the Telescopic Antenna and adjust its length, direction and angle for the best reception.
- Make sure that the plug is inserted into the ROD/EXT Antenna Jack at the rear.

1 Press the POWER Button.
- The picture will appear in a few seconds.

To switch off, press the button again.

2 Press a Channel Select Button which has been preset to the desired channel.

4 To increase the sound volume, slide the VOLUME Control to the right.
To decrease, slide it to the left.

- The channel selected before the POWER Button is set to OFF will be memorized.
- When an external antenna is to be used, refer to page 21.

Automatic picture adjustment
Set the AUTO/AFT Switch to ON. The AFT (Automatic Fine Tuning) locks in the correct signal and secures a sharp picture. The AUTO color circuit locks onto preset levels of hue and color to provide correct reproduction.

Brightness and contrast adjustment
Correct brightness and contrast settings are important for good color reproduction.
Perform the initial adjustments as follows:
❶ Turn the PICTURE Control fully counterclockwise.
❷ Adjust the BRIGHTness Control so that the darkest parts of the picture are seen as black.
❸ Turn the PICTURE Control from the lowest setting to the desired level according to your preference and room lighting conditions.
The PICTURE Control will adjust the contrast, color intensity and brightness simultaneously in the proper ratio.
A center detent position that provides a setting suitable for average use is incorporated in this control.

Manual color and hue adjustment
Both COLOR and HUE Controls have a limited adjustment range in the AUTO mode. If you wish to control color reproduction manually, set the AUTO/AFT Switch to OFF to disengage the automatic color mode.

Adjust the COLOR Control for the desired color intensity.

Picture becomes pale.

Picture becomes vivid.

Adjust the HUE Control for the most natural skin tones.

Skin tones become purplish.

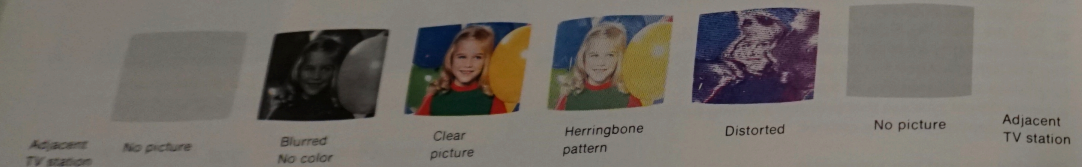
Skin tones become greenish.

- COLOR and HUE adjustments have no effect upon black and white programs.

To fine-tune the channel manually

In case of extreme interference, or of an extremely weak station, adjust the fine tuning manually as follows.

Check that the CHANNEL SET Switch in the Presetting Compartment is set to OFF, set the AUTO/AFT Switch to OFF and keep the TUNING ▶ or ◀ Button depressed until a clear picture is obtained. Refer to the following chart. After the fine tuning is completed, close the Presetting Compartment Lid and Control Compartment Lid with the AUTO/AFT Switch set to OFF.



Vertical hold control

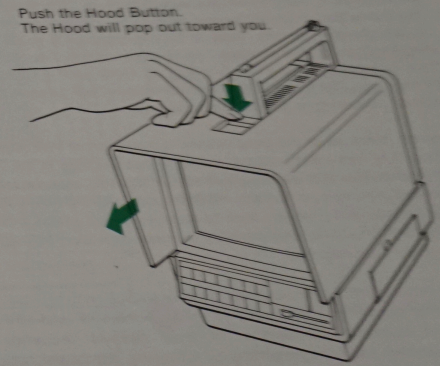
If the picture rolls vertically, adjust the V HOLD Control at the rear.

Earphone jacks

For private listening, insert the earphone plug into the [•] receptacle. This disconnects the loudspeaker. The use of the [⁚] receptacle permits the earphone and the loudspeaker to be used simultaneously. TV sound may be recorded by connecting a tape recorder to the [⁚] receptacle with a suitable connecting cord. Adjust the TV volume for a normal listening level.

TV Hood

Using the Hood reduces glare and produces a better picture when viewing the TV in sunlight or a very bright location.



To replace, push the Hood inwards until it locks into place.

INTRODUCTION TO CHANNEL PRESETTING

Your Sony color TV employs an advanced electronic tuning system that is capable of receiving up to 14 preselected television channels or other program sources such as a connected cable TV system or video tape recorder.

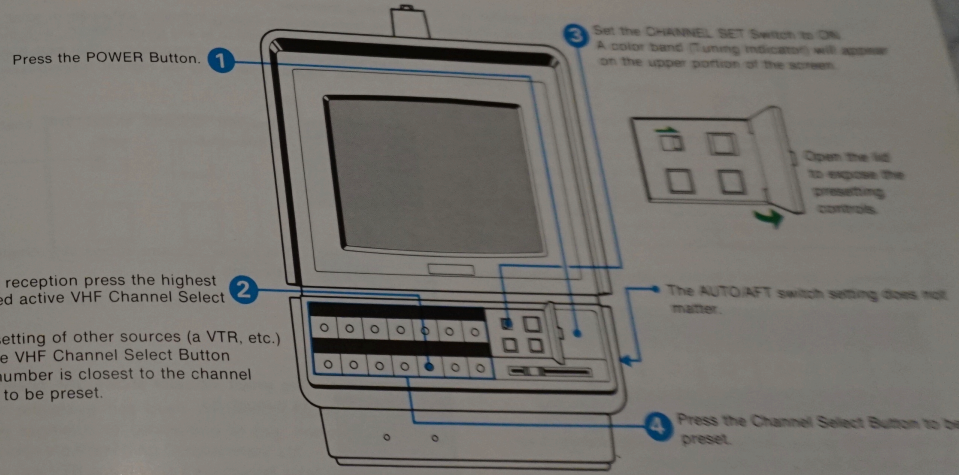
As you receive your Sony TV from the dealer, it has been factory-preadjusted to receive VHF channels 2 through 13 by simply pressing the button on the set's panel having the number corresponding to the channel number. Thus to receive channel 2, press button number 2; to receive channel 7 or 13, press button 7 or 13, etc. This factory presetting permits you to enjoy VHF TV reception immediately. Therefore, if you wish to receive VHF channels only, channel presetting is not generally required.

However, because of the geographical distribution of VHF stations in the U.S.A., there will probably be some pushbuttons in the 2–13 range that will not provide reception at your location, with the result that several of these pushbuttons will be unusable for the time being. In addition, you will probably wish to receive several of the locally available UHF channels, and possibly to make provision for cable TV or a video tape recorder.

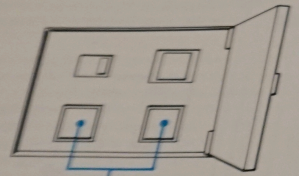
If you wish to preset the UHF channels or other source on the unused position (this page), or if you wish to arrange the VHF and UHF channels in numerical sequence, or your desired sequence (page 17), perform channel presetting by following one of the two suggested procedures.

Ⓐ TO PRESET UHF CHANNELS OR OTHER SOURCE ON THE PRESENTLY UNUSED POSITIONS

By using the factory preset 2–13 pushbuttons, you have been able to determine which VHF stations provide good reception. From the local newspaper, or your neighbors, or another TV set, you can determine which UHF stations provide satisfactory reception in your locality.


Press the POWER Button. 1
3 Set the CHANNEL SET Switch to ON. A color band (Tuning Indicator) will appear on the upper portion of the screen.
Open the lid to expose the presetting controls.
For UHF reception press the highest numbered active VHF Channel Select Button.
For presetting of other sources (a VTR, etc.) press the VHF Channel Select Button whose number is closest to the channel number to be preset.
2
The AUTO/AFT switch setting does not matter.
4 Press the Channel Select Button to be preset.

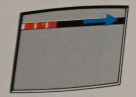
- You may use the lowest-right-most two buttons marked with asterisks (At the factory, any memory has been erased on these two buttons.) or the unused positions among the factory-preset VHF channels.
- **The Channel Indicator will illuminate and the STATION YOU HAVE SELECTED IN STEP 2 WILL APPEAR.**



5 *Referring to the picture selected in step 2, press the TUNING ▶ Button for locating higher numbered channels or the ◀ Button for locating lower numbered channels (do not hold the button in, just press it momentarily). Allow 1 or 2 seconds for the picture to stabilize.*

6 *Repeat step 5 as required until your desired station is received. Use the Tuning Indicator as a guide.*
• In strong signal areas, tuning may sometimes stop between channels. If your desired station is not received, press the TUNING Button again.

Tuning Indicator
The multi-segment Tuning Indicator will show in what portion of the band you are tuned to at any given moment, with the left-most segment indicating the lowest frequency within each band, and the right-most segment indicating the highest frequency within each band.

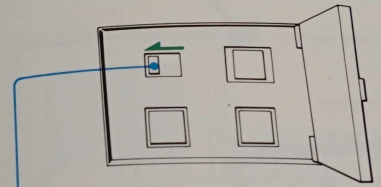


The red indicator shows VHF channels 2 through 6.

The yellow indicator shows VHF channels 7 through 13.

The green indicator shows UHF channels 14 through 83.

7 Repeat steps 4 5 6 until all desired available TV stations have been preselected.
(If you wish to rearrange your channel position, refer to the next paragraph.)



8 Set the CHANNEL SET Switch to OFF.

After the presetting has been completed, replace the channel indicating segments to correspond to your presetting (see page 18) and close the Presetting Compartment Lid.
• If there is a VTR position to be included, refer to page 19.
• To use your TV set with a cable television system, contact a representative of the cable company for instructions regarding channel selection. In most cases, the adjustment will be made by the cable company at the time of installation.

Ⓑ TO ARRANGE THE ACTIVE VHF AND UHF CHANNELS IN NUMERICAL SEQUENCE OR YOUR DESIRED SEQUENCE.

Any push button can be set to any frequency from below channel 2 to the highest UHF TV frequency.

❶ Make a list of your receivable VHF and UHF stations or any other source and list them as shown in the following example.
VHF: Channels 2, 4, 5, 7, 9, 11 and 13
UHF: Channels 21, 25, 31, 41 and 47
❷ Having made such a list, remove the Channel Indicator Windows from the panel, and replace numbers to correspond to your list, as shown on page 18. You are now ready to preset the Channel Select Button to correspond to your selection of stations.

Example

2	4	5	7	9	11	13
○	○	○	○	○	○	○
21	**25**	**31**	**41**	**47**	**VTR**	**✻**
○	○	○	○	○	○	○

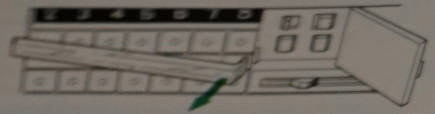
❸ Press the POWER Button.
❹ Set the CHANNEL SET Switch to ON.
❺ Press the Channel Select Button to be preset.
THE STATION SELECTED JUST BEFORE THE CHANNEL SE SWITCH HAS BEEN SET TO "ON" WILL APPEAR.

❸ Perform steps ❷ and ❷ previously described in case (A).

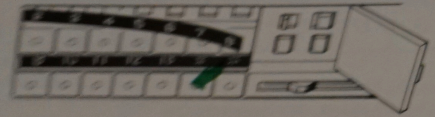
Alternatively, to tune in the desired station, you may use the CLEAR Button to erase any memory on the depressed Channel Select Button and to position its tuning to a frequency below channel 2. Then use the TUNING ▶ Button to locate your desired station.

To replace the number indicating segments

❶ Remove the Channel Indicator Windows.



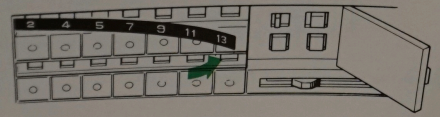
❷ Remove the sheets.



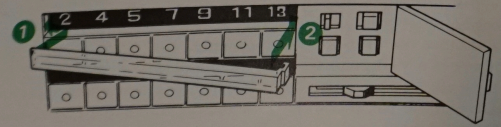
❸ Stick the correct number segments onto the new sheets (supplied).

Adhesive number segments (supplied)

❹ Replace the sheets.

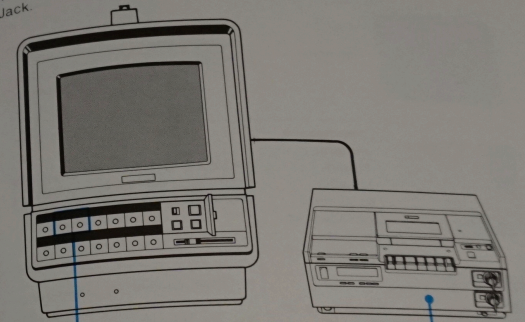


❺ Replace the Channel Indicator Windows in the original positions.



To preset for VTR playback

To view the playback picture from a Sony Betamax video tape recorder (or other VTR) equipped with an RF output terminal, connect a VHF antenna to the recorder (not to the TV) and then connect the VHF (or RF) OUT terminal of the recorder to the ROD/EXT Antenna Jack.



At the factory, the second button is pre-adjusted to VHF channel 3 and the third button to VHF channel 4. One of these channels, 3 or 4 is locally inactive and may be used to view the VTR playback picture.

Sony Betamax videocassette recorder

If you wish to preset some other position to receive the signals from the recorder, complete the connections and proceed as follows.

❶ Set the recorder to the playback mode.
The signal from the recorder will be fed to the TV.

❷ Set the CHANNEL SET Switch to ON.

❸ Press the Channel Select Button to be preset for viewing the playback picture.

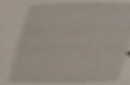
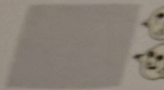
❹ Press the CLEAR Button.

❺ Press the TUNING ▶ Button until VHF channel 3 or 4 (the operating channel of the rf unit built into the recorder) is received, whereupon a clear picture will be obtained.

❻ Set the CHANNEL SET Switch to OFF.

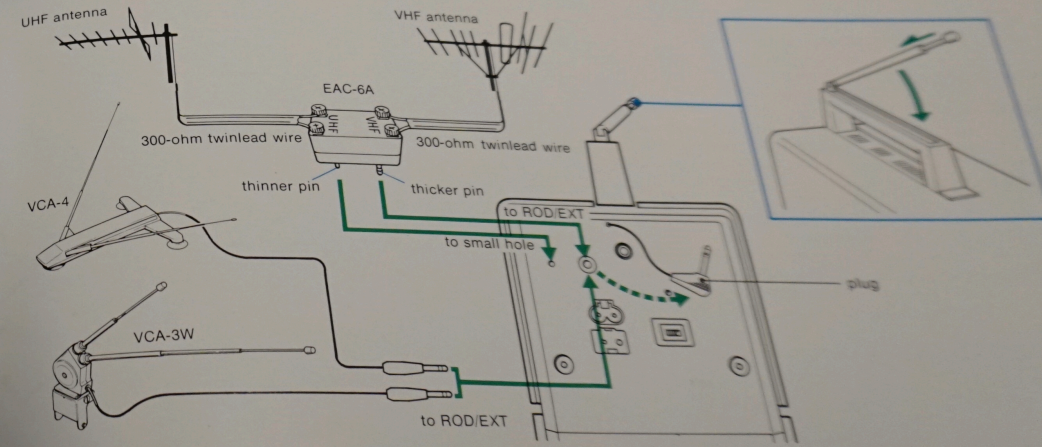
CHECKING THE RECEIVER BY YOURSELF

Many apparent malfunctions may be caused by slight misadjustments of the regular controls or some other equally simple cause. If any difficulty arises in the operation of your set, first check through this illustrated list of symptoms and corrections. Should the difficulty persist, unplug the set and contact your Sony dealer.

SYMPTOM	CORRECTION
 no picture (screen not lit), no sound	• Plug the set into a working outlet. • If operating on the BP-37N, check that the ac power cord and the car battery cord are disconnected from the TV, or recharge the battery pack.
 no picture (screen not lit), but good sound	• Turn the BRIGHTness or PICTURE Control clockwise.
good picture but no sound	• Slide the VOLUME Control to the right. • Check that the earphone is disconnected from the [·] EARPHONE Jack.
no picture, no sound, but snow and noise only	• Adjust the Telescopic Antenna. • Check the external antenna.

SYMPTOM	CORRECTION
no color	• Check that the AUTO/AFT Switch is set to ON. • Check that the COLOR Control is not turned fully counterclockwise.
herringbone pattern, stripes, no color, no picture, too indistinct, etc.	• Set the AUTO/AFT Switch to OFF and adjust the fine tuning with the TUNING ▶ or ◀ Button.
dotted lines or stripes	• Often caused by interference from autos, neon signs, hair dryers, electric razors, etc. Try adjusting the antenna for minimum interference.
double images or "ghosts"	• Reflections from nearby mountains or buildings often cause this problem. In such cases, a highly directional outdoor antenna may improve the picture.

EXTERNAL ANTENNA CONNECTION

In most reception areas, the built-in Telescopic Antenna should be adequate for good reception. However, if you cannot obtain satisfactory reception with it, the use of an external or outdoor antenna is recommended.
Disconnect the plug from the ROD/EXT Antenna Jack and connect the external antennas with the External Antenna Connector EAC-6A (supplied) as illustrated.

• When an external antenna is to be used, retract the Telescopic Antenna.
• For optimum reception in your car, the optional Roof-side Automobile TV Antenna for VHF/UHF VCA-3W, or Roof-top Automobile TV Antenna for VHF/UHF VCA-4 is recommended.